

1                   13. (Amended) A method for an interrogator reading one or  
2 more RFID transponders in a field comprising the steps of:

3                   a. providing a carrier signal;  
4                   b. detecting the presence of at least one transponder;  
5                   c. receiving data from all active transponders in the field;  
6                   d. determining whether the interrogator has received a  
7 valid data transmission; and

8                   e. upon determining an invalid data transmission,  
9 informing [modifying the carrier signal to inform] all active transponders  
10 in the field that there was an incomplete read, the informing including  
11 suppressing the carrier.

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13                   14. (Amended) The method recited in claim 13, wherein steps  
14 (c) and (d) are iteratively repeated until the interrogator determines that  
15 it [is] has read the complete data for each transponder in the field.

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17                   18. (Amended) The method as recited in claim 14, wherein the  
18 step of determining whether the interrogator has received an [a] invalid  
19 data transmission comprises detecting the interrogator's inability to  
20 compute a proper synchronization word, a proper CRC, or a [an] proper  
21 word length.

1      ~~19.~~ (Amended) The method as recited in claim ~~14~~, wherein the  
2      step of informing active transponders in the field that there was an  
3      incomplete read [modifying the carrier signal in a predetermined manner]  
4      comprises suppressing the carrier signal for a predetermined number of  
5      clock cycles.

6      ~~8~~ ~~20.~~ (Amended) The method as recited in claim ~~14~~, wherein the  
7      step of informing active transponders in the field that there was an  
8      incomplete read [modifying the carrier signal] is performed prior to the  
9      transponder sending its complete data transmission.

10     ~~9~~ ~~21.~~ (Amended) The method as recited in claim ~~20~~ wherein the  
11     step of informing active transponders in the field that there was an  
12     incomplete read [modifying the carrier signal] is performed substantially  
13     simultaneously upon the determination that invalid data transmission has  
14     been received.

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19     Please add new claims as follows.  
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1                   13-25. A method for an interrogator reading one or more RFID  
2                   transponders in a field, the interrogator including a demodulator, the  
3                   method comprising:

4                   providing a carrier signal;

5                   detecting the presence of at least one transponder, the  
6                   detecting including receiving data from the demodulator and modifying  
7                   the carrier signal by suppressing the carrier signal for a predetermined  
8                   number of clock cycles;

9                   receiving data from all active transponders in the field, the  
10                   receiving including receiving the data in groups of one or more bits and  
11                   checking the validity of each group of data as the group is received;

12                   determining whether the interrogator has received a valid  
13                   data transmission by detecting the interrogator's inability to compute a  
14                   proper synchronization word, a proper CRC, or a proper word length;

15                   upon determining an invalid data transmission, modifying the  
16                   carrier signal to inform all active transponders in the field that there  
17                   was an incomplete read; and

18                   transmitting the complete data for each transponder from the  
19                   interrogator to a computer system for processing.

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21                   14 26. The method as recited in claim 13-25, wherein the step of  
22                   modifying the carrier signal is performed prior to the transponder  
23                   sending its complete data transmission.

1      ~~15~~ 27. The method as recited in claim ~~25~~ <sup>13</sup> wherein the step of  
2      modifying the carrier signal is performed substantially simultaneously upon  
3      the determination that invalid data transmission has been received.

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5      ~~16~~ 28. The method as recited in claim ~~25~~ <sup>13</sup> wherein the receiving and  
6      the determining whether the interrogator has received a valid data  
7      transmission are iteratively repeated until the interrogator determines that  
8      the interrogator has read the complete data for each transponder in the  
9      field.

10      ~~11~~ 29. The method as recited in claim ~~28~~ <sup>16</sup>, wherein determining that  
11      the interrogator has read the complete data for one of the transponders  
12      in the field comprises determining that a CRC is valid and modifying  
13      the carrier signal in a predetermined manner.

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18 30. A method for an interrogator reading one or more RFID  
2 transponders in a field, the interrogator including a demodulator, the  
3 method comprising:

4 providing a carrier signal;

5 detecting the presence of at least one transponder, the  
6 detecting including receiving data from the demodulator and modifying  
7 the carrier signal in a predetermined manner;

8 receiving data from all active transponders in the field, the  
9 receiving including receiving the data in groups of one or more bits and  
10 checking the validity of each group of data as it is received;

11 determining whether the interrogator has received a valid  
12 data transmission; the receiving and the determining being iteratively  
13 repeated until the interrogator determines that the interrogator has read  
14 complete data for each transponder in the field, the determining that the  
15 interrogator has read complete data for one of the transponders including  
16 determining that the CRC is valid and suppressing the carrier;

17 upon determining an invalid data transmission, modifying the  
18 carrier signal to inform all active transponders in the field that there  
19 was an incomplete read; and

20 transmitting the complete data for each transponder from the  
21 interrogator to a computer system for processing.

1      19 31. The method recited in claim 30, wherein the step of  
2      modifying the carrier signal in a predetermined manner comprises sending  
3      out the carrier signal continuously.

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5      20 32. The method as recited in claim 30, wherein the step of  
6      modifying the carrier signal in a predetermined manner comprises  
7      suppressing the carrier signal for a predetermined number of clock cycles.

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9      21 33. The method as recited in claim 32, wherein the step of  
10     modifying the carrier signal is performed prior to the transponder  
11     sending its complete data transmission.

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13     22 34. The method as recited in claim 32, wherein the step of  
14     modifying the carrier signal is performed substantially simultaneously upon  
15     the determination that invalid data transmission has been received.

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17     23 35. The method as recited in claim 30, wherein the step of  
18     determining whether the interrogator has received an invalid data  
19     transmission comprises detecting the interrogator's inability to compute  
20     a proper synchronization word, a proper CRC, or a proper word length--